

## REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

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1. Agency Use Only (Leave blank).		2. Report Date. 1990		3. Report Type and Dates Covered. Proceedings	
4. Title and Subtitle. Water in Marine Sediments				5. Funding Numbers. Program Element No. 61153N Project No. 03205 Task No. 330 Accession No. DN257003	
6. Author(s). Richard H. Bennett and Huon Li				7. Performing Organization Name(s) and Address(es). Naval Oceanographic and Atmospheric Research Laboratory Stennis Space Center, MS 39529-5004	
8. Performing Organization Report Number. PR 90:077:360				9. Sponsoring/Monitoring Agency Name(s) and Address(es). Naval Oceanographic and Atmospheric Research Laboratory Stennis Space Center, MS 39529-5004	
10. Sponsoring/Monitoring Agency Report Number. PR 90:077:360				11. Supplementary Notes. *Continued on next page	
12a. Distribution/Availability Statement. Approved for public release; distribution is unlimited.				12b. Distribution Code.	
13. Abstract (Maximum 200 words). Marine sediments of the world ocean basins consist of a wide variety of particulate materials that vary considerably chemically and physically. The sedimentary deposits are lithogenic or biogenic depending on the predominant particle types and source. Compositionally the particles are biologically produced marine carbonate or siliceous materials or terrigenous components such as detrital sands and clays and/or authigenic minerals. Organic carbon is often an important constituent of marine sediment. The distribution of sediments in the world oceans and their physical, mechanical, and chemical properties are determined by numerous macro and micro-environmental processes. The water content and porosity are important fundamental physical properties that are highly variable. The sediment porometry and volume of water contained in the pores are controlled by particle size and type, and the microstructure (fabric and physico-chemistry). Temporal and spatial changes occur in sediment porosity, water content, and porometry as a function of large and small scale process; typical examples are gravitational consolidation and authigenic mineralization.*					
14. Subject Terms. (U) Sediment Transport; (U) Sediments; (U) Pore Pressure; (U) Clay				15. Number of Pages. 1	
16. Price Code.				17. Security Classification of Report. Unclassified	
18. Security Classification of This Page. Unclassified				19. Security Classification of Abstract. Unclassified	
20. Limitation of Abstract. SAR					

AD-A226 521

File

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\*respectively. Properties such as permeability, shear strength, and compressibility of surficial marine sediment depend largely on the basic nature of the microstructure, the particle size distribution, and percentage of organic material which collectively determines the water content and porosity of sedimentary deposits. High water contents of surficial sediments are associated with fine-particle size and high organic carbon content.



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Unannounced	<input type="checkbox"/>
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Availability Codes	
Dist	Avail and/or Special
A-1	

## WATER IN MARINE SEDIMENTS

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Marine sediments of the world ocean basins consist of a wide variety of particulate materials that vary considerably chemically and physically. The sedimentary deposits are lithogenic or biogenic depending on the predominant particle types and source. Compositionally the particles are biologically produced marine carbonate or siliceous materials or terrigenous components such as detrital sands and clays and/or authigenic minerals. Organic carbon is often an important constituent of marine sediment. The distribution of sediments in the world oceans and their physical, mechanical, and chemical properties are determined by numerous macro and micro-environmental processes.

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